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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,267

03/12/2004

Yasushi Sugaya

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EXAMINER

BOLDA, ERIC L

ART UNIT

PAPER NUMBER

3663

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/798,267

Applicant(s)

SUGAYA ET AL.

Examiner

Eric Bolda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-44 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13 and 17-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-11, 14-16, 43, 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 17, 2006 has been entered.

Response to Amendment

2. Applicant's amendment filed on Oct. 17, 2006 has been entered.

Response to Arguments

3. Applicant's arguments filed Oct. 17, 2006 have been fully considered but they are not persuasive.

4. Applicant argues **A** that Sobe merely monitors the signal light which is Raman amplified to control the pump light via feedback, while the present invention transmits additionally to the main signal light a plurality of reference lights, which are different from the signal lights, and these are used to control the pumping light source. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the specific difference between the reference light and main signal light) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

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limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Even assuming *arguendo* that the signal lights and reference lights have different wavelengths, the apparatus of Fig. 9 clearly monitors the signal lights at some wavelengths and not others [para. 0239], so that the claim limitations are met by labeling some of the signal lights "main signal" and others "reference". The signal light, being within a band from 1530nm to 1560 nm and 1570 to 1610, includes wavelengths that are allowed to undergo Raman gain in the vicinity of the peak of the Raman spectrum (compare the signal spectrum Fig. 10 to the Raman spectrum obtainable from multiple pumps Fig. 15).

5. Applicant further argues **B** that Sobe must use a pump light controller relying on the number or arrangement of the signal light, while the inventions controller can acquire suitable Raman amplification even when the number of signal lights changes or the arrangement of signal lights in wavelength becomes biased. In response, it is noted that the features upon which applicant relies (i.e., the controller can acquire suitable Raman amplification even when the number of signal lights changes or the arrangement of signal lights in wavelength becomes biased) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 3, 14, 15, 16, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "in the vicinity of the peaks of the respective Raman gains" in claims 2, 14, 15 and "in the vicinity of the Raman shift frequency" in claim 3 or 44 is not specific enough to one skilled in the art to determine how close the pump wavelengths and reference light wavelengths need to be.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 2-11, 14-16, and 43-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Sobe et al (US Pat. App. Pub. 2003/0117694).

With regard to claims 2, 3, 14, 15, 43, and 44 Sobe discloses in Fig. 9 an optical amplifier supplying a pumping light (30) via a coupler (62-1) to an optical amplification medium (10). The optical amplification medium is part of an optical transmission system. A monitoring light which is together with the WDM light (see para. [0241]) is transmitted along the optical amplification medium. The pump light has a plurality of different wavelengths (para. [0170]). The transmission station sends out a plurality of reference lights. The plurality of pumping lights are controlled via (65) based on the

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optical powers of the plurality of reference lights. In all instances, specifying frequency is equivalent to specifying wavelength. The optical amplifier may be part of an transmission system with a transmission station producing the reference and WDM signal light, and a reception station para. [0098].

The clauses "capable of introducing said plurality of pumping lights..." and "allowing respective Raman gains obtained..." are essentially statements of intended or desired use, and appear optional. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

Note: in order to avoid a statement of intended use, language such as "configured to introduce.." and "configured to result in Raman gains..." is suggested.

With regard to claim 4, the transmission station sends information.

With regard to claims 5-6, the WDM signal light is arranged on frequency grids.

With regard to claims 7-9, the reference lights in the WDM light are detected by an optical spectrum analyzer (50-2). The reference light is selectively reflected at (61-2).

With regard to claim 10-11, the control means controls the plurality of pumping lights.

With regard to claim 16, the method is merely the normal operation of the device described in claims 2-3, and hence is rejected on the same grounds.

Conclusion

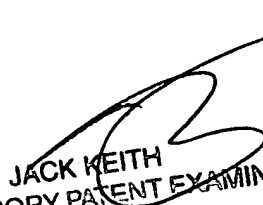
10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric Bolda whose telephone number is 571-272-8104. The examiner can normally be reached on M-F from 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Jack Keith, can be reached on 571-272-6878. Please note the fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric Bolda


JACK KEITH
SUPERVISORY PATENT EXAMINER